IN THE CLAIMS:

1. (Currently Amended) A method, comprising:

performing a topology discovery of <u>properties of fundamental path elements of</u> a cluster<u>, including path links;</u> ~~that includes a plurality of ports;~~

~~identifying all the possible paths to each port from any other port;~~

receiving a request from a client <u>for information on the properties of the fundamental path elements of a path</u>, the request identifying <u>at least</u> a source and a destination of ~~a~~ <u>the</u> path; and

sending a response to the client based on the request, the response ~~identifying~~ <u>providing the information on the properties for the fundamental path elements of the path, including</u> one or more links ~~and switches~~ between the source and the destination.

2. (Original) The method of claim 1, further comprising:

determining whether the request ought to be redirected.

3. (Original) The method of claim 2, further comprising:

sending a redirection address to the client if the request ought to be redirected.

4. (Original) The method of claim 3, further comprising:

submitting the request to the redirection address.

5. (Currently Amended) The method of claim 1, wherein the properties of fundamental path elements include at least one of: link speed, service levels supported, path latency, hop count, maximum transfer unit (MTU), and latency cost. : the source and the path are each identified by a respective local identification value (LID).

6. (Currently Amended) The method of claim 1, wherein identification of fundamental path elements is performed using at least one of the following:

the source and the destination are each identified by a respective local identification value (LID), each switch is identified by a respective globally unique identifier (GUID), and each link is identified by at least the port GUIDs of ports connected to both ends of the link.

7. (Currently Amended) The method of claim 1, wherein:

the response identifies an order in which the one or more links and switches are traversed from the source to the destination.

8. (Currently Amended) A cluster, comprising:

a fabric of switches and path links;

a plurality of ports on the fabric;

a topographical discovery service coupled to the fabric, the service operative to discover properties of fundamental path elements of the fabric, including the path links;

wherein the service is operative to send a response based on a request from a client for information on the properties of the fundamental path elements of a path;

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wherein the request identifies <u>at least</u> a source and a destination of a path; and

wherein the response <s>identifies</s> <u>providing the information on the properties for the</u>

<u>fundamental path elements of the path, including</u> one or more links <s>and switches</s>

between the source and the destination.

9. (Currently Amended) The cluster of claim 8, wherein:

the client is <u>one of</u> a host <u>and an I/O enclosure</u>.

10. (Currently Amended) The cluster of claim 8, wherein <u>the properties of</u>

<u>fundamental path elements include at least one of: link speed, service levels supported,</u>

<u>path latency, hop count, maximum transfer unit (MTU), and latency cost.</u> <s>: the client is</s>

<s>an I/O enclosure.</s>

11. (Original) The cluster of claim 8, wherein:

the service is operative to determine whether the request ought to be redirected.

12. (Currently Amended) The cluster of claim 11, wherein:

if the request ought to be redirected, the service is operative to send a redirection

address to the client<u>, and the request is submitted to the redirection address</u>.

13. (Currently Amended) The cluster of claim ~~12~~ 8, wherein identification of

fundamental path elements is performed using at least one of the following:

the source and the destination are each identified by a respective local

identification value (LID), each switch is identified by a respective globally unique

identifier (GUID), and each link is identified by at least the port GUIDs of ports

connected to both ends of the link. ~~: the request is submitted to the redirection address.~~

14. (Currently Amended) The cluster of claim 8, wherein:

the response identifies an order in which ~~the~~ one or more links ~~and switches~~ are

traversed from the source to the destination.

15. (Currently Amended) The cluster of claim 8, wherein:

the topographical discovery service is operative to discover properties of all

fundamental path elements of the fabric. ~~identify all the possible paths to each port~~

~~from any other port.~~

16. (Currently Amended) A computer readable medium having stored thereon

instructions which, when executed, ~~by a processor, cause the processor to perform~~

enables a system to perform a method, said method comprising:

performing a topology discovery of properties of fundamental path elements of a

cluster, including path links; ~~that includes a plurality of ports;~~

~~identifying all the possible paths to each port from any other port;~~

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receiving a request from a client <u>for information on the properties of the</u>

<u>fundamental path elements of a path</u>, the request identifying <u>at least</u> a source and a

destination of a̶ <u>the</u> path; and

sending a response to the client based on the request, the response i̶d̶e̶n̶t̶i̶f̶y̶i̶n̶g̶

<u>providing the information on the properties for the fundamental path elements of the</u>

<u>path, including</u> one or more links a̶n̶d̶ ̶s̶w̶i̶t̶c̶h̶e̶s̶ between the source and the destination.

17. (Original) The computer readable medium of claim 16, said method further

comprising:

determining whether the request ought to be redirected.

18. (Original) The computer readable medium of claim 17, said method further

comprising:

sending a redirection address to the client if the request ought to be redirected.

19. (Original) The computer readable medium of claim 18, said method further

comprising:

submitting the request to the redirection address.

20. (Currently Amended) The computer readable medium of claim 16, wherein

wherein <u>the properties of fundamental path elements include at least one of: link speed,</u>

<u>service levels supported, path latency, hop count, maximum transfer unit (MTU), and</u>

latency cost. ~~: the source and the path are each identified by a respective local~~

~~identification value (LID).~~

21. (Currently Amended) The computer readable medium of claim 16, <u>wherein</u>

<u>identification of fundamental path elements is performed using at least one of the</u>

<u>following:</u>

   <u>the source and the destination are each identified by a respective local</u>

<u>identification value (LID),</u> each switch is identified by a respective globally unique

identifier (GUID), and each link is identified by <u>at least</u> the port GUIDs of ports

connected to both ends of the link.

22. (Currently Amended) The computer readable medium of claim 16, wherein:

   the response identifies an order in which ~~the~~ one or more ~~switches~~ <u>links</u> are

traversed from the source to the destination.